



Chicago Metropolitan
Agency for Planning

Regional Water Supply Planning in Northeastern Illinois

Timothy T. Loftus, Ph.D.
Senior Environmental Planner

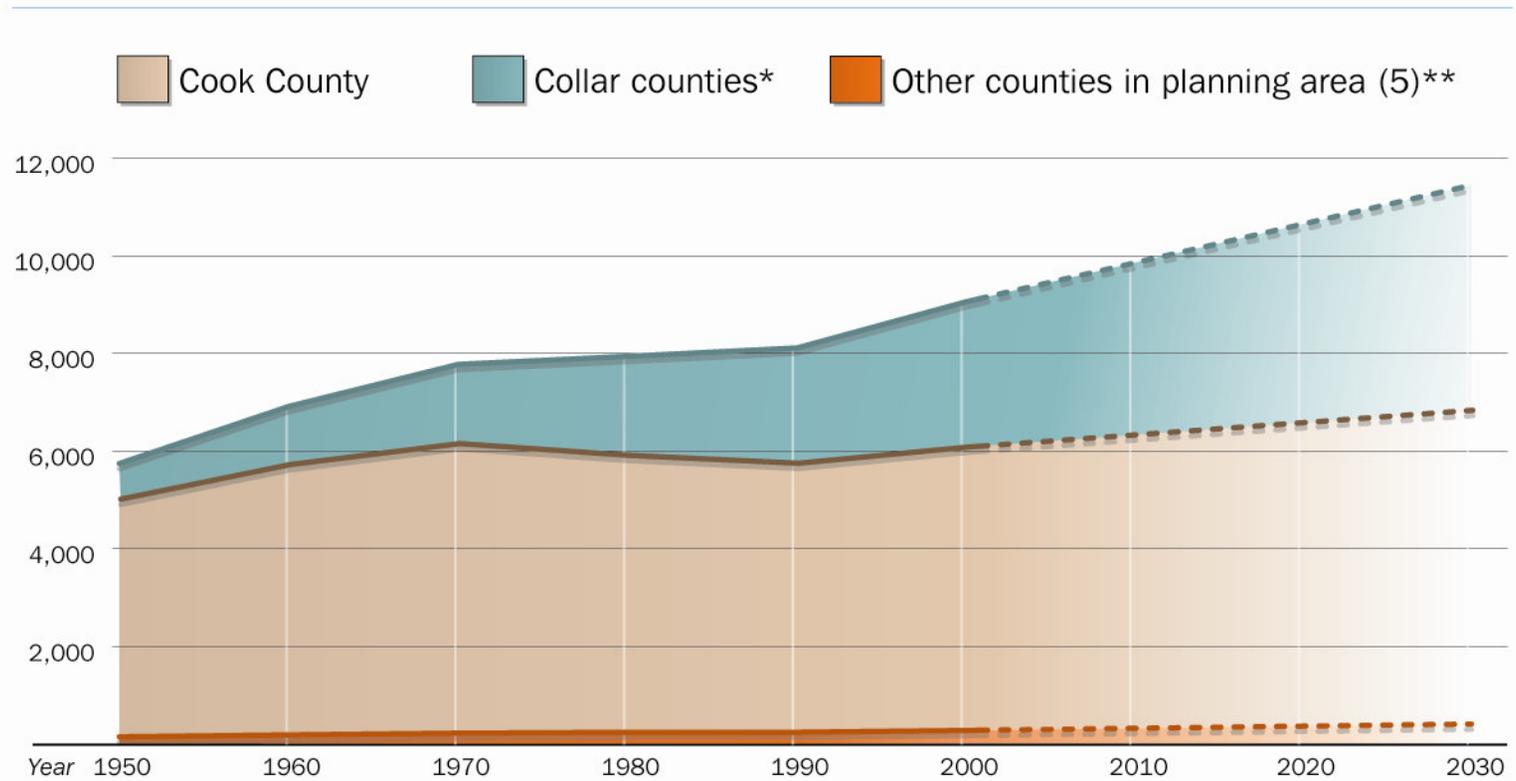
6 February 2008
Chicago, Illinois



*Groundwater is also used within these areas in some cases.
Source: Chicago Metropolitan Agency for Planning

Distribution of Population in Northeastern Illinois

Total population, in thousands



* DuPage, Kane, Lake, McHenry, Will

** Boone, DeKalb, Grundy, Kankakee, Kendall

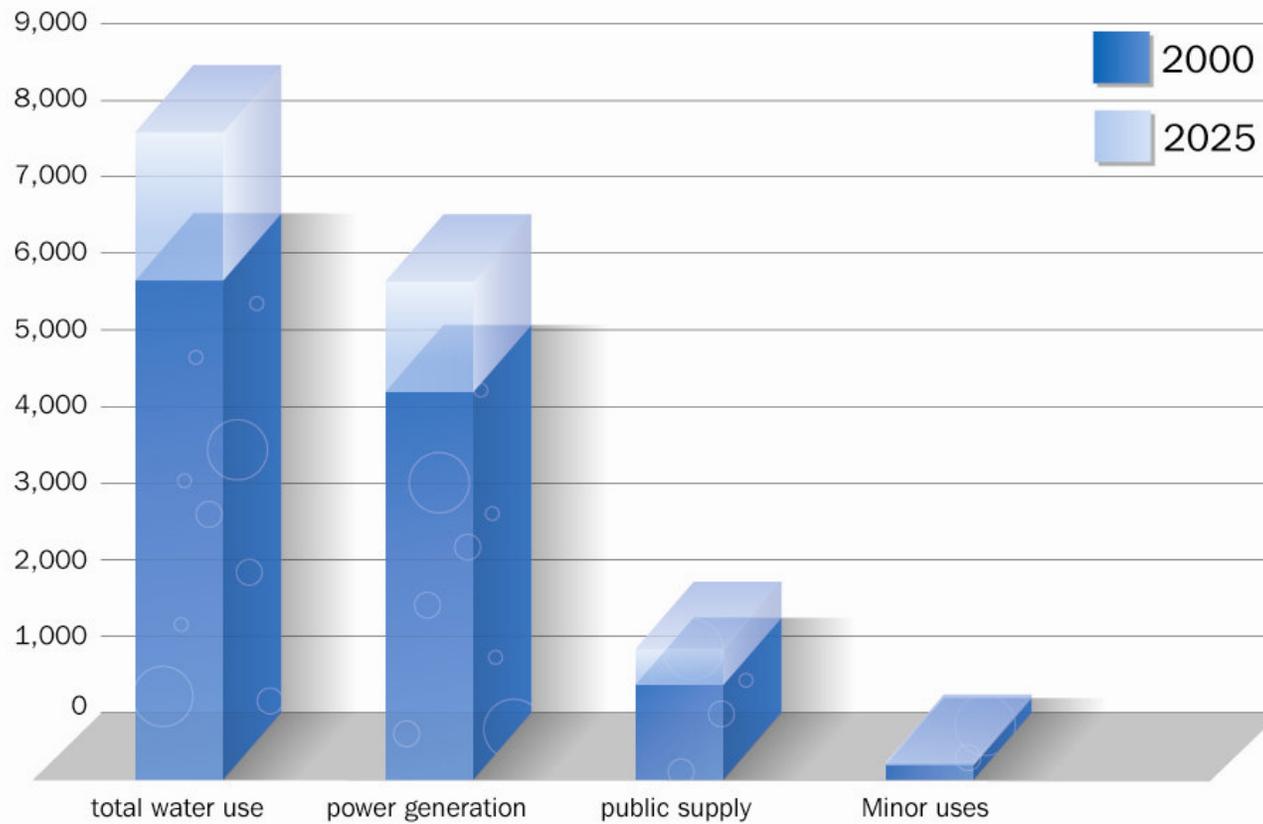
Sources: U.S. Census Bureau; Northeastern Illinois Planning Commission; al Chalabi Group, Ltd.



Chicago Metropolitan
Agency for Planning

Projections for Water Use by Sector

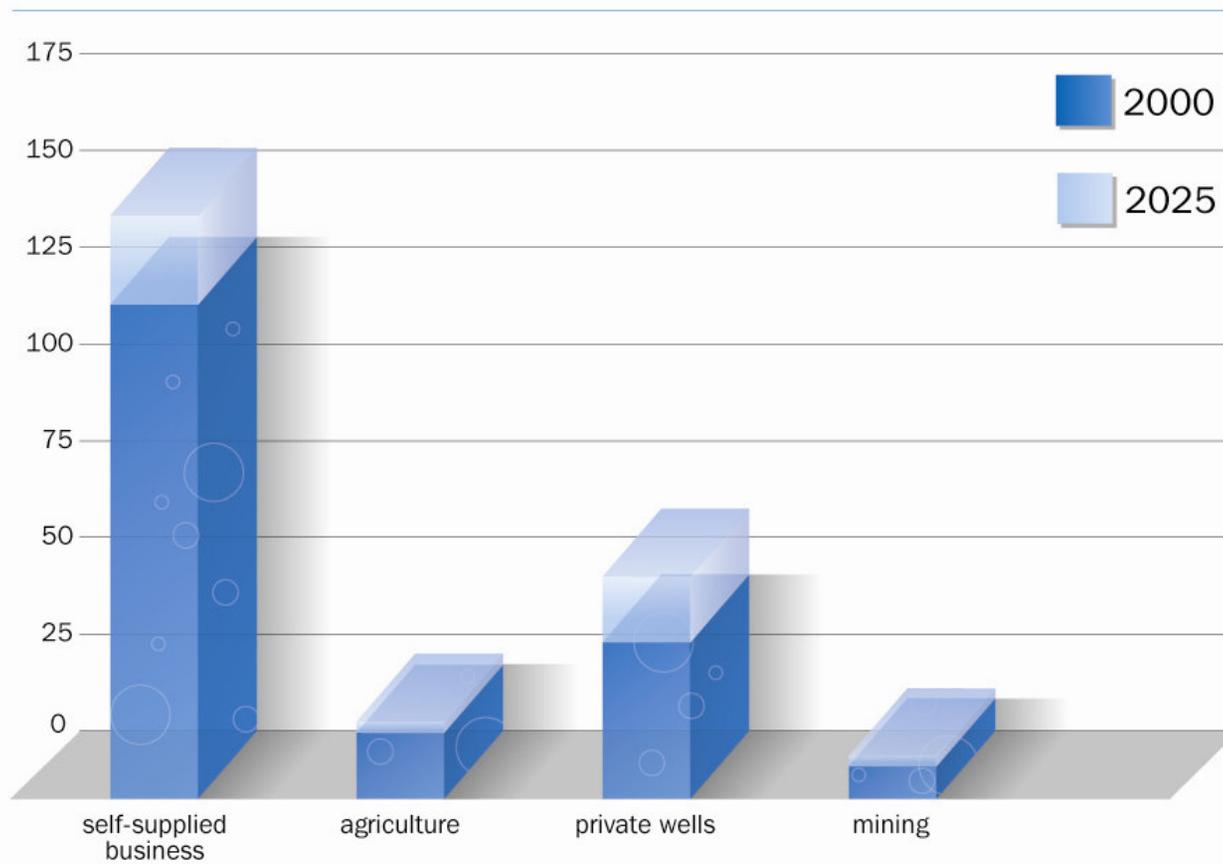
11-County Northeastern Illinois Region, in millions of gallons per day



Source: Dziegielewski et al. 2005; contract report for Illinois State Water Survey

Projections for Water Use by Sector, minor uses

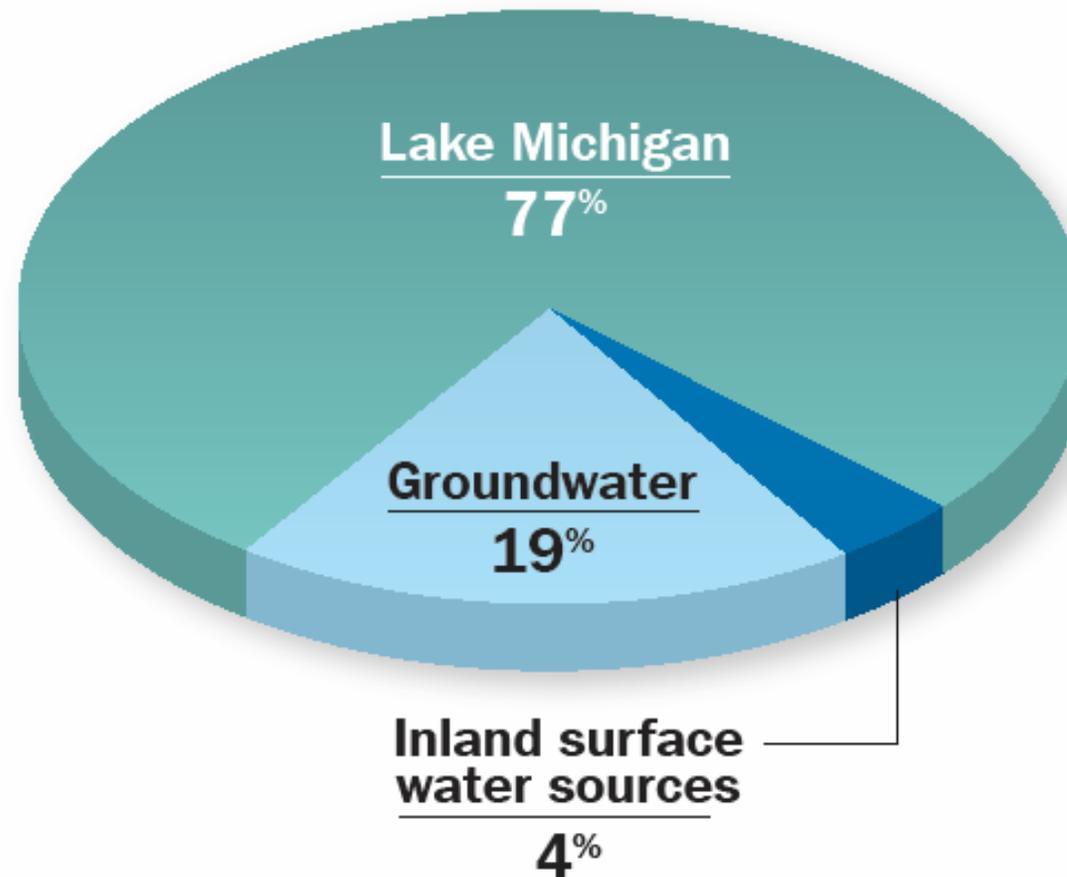
11-County Northeastern Illinois Region, in millions of gallons per day



Source: Dziegielewski et al. 2005; contract report for Illinois State Water Survey

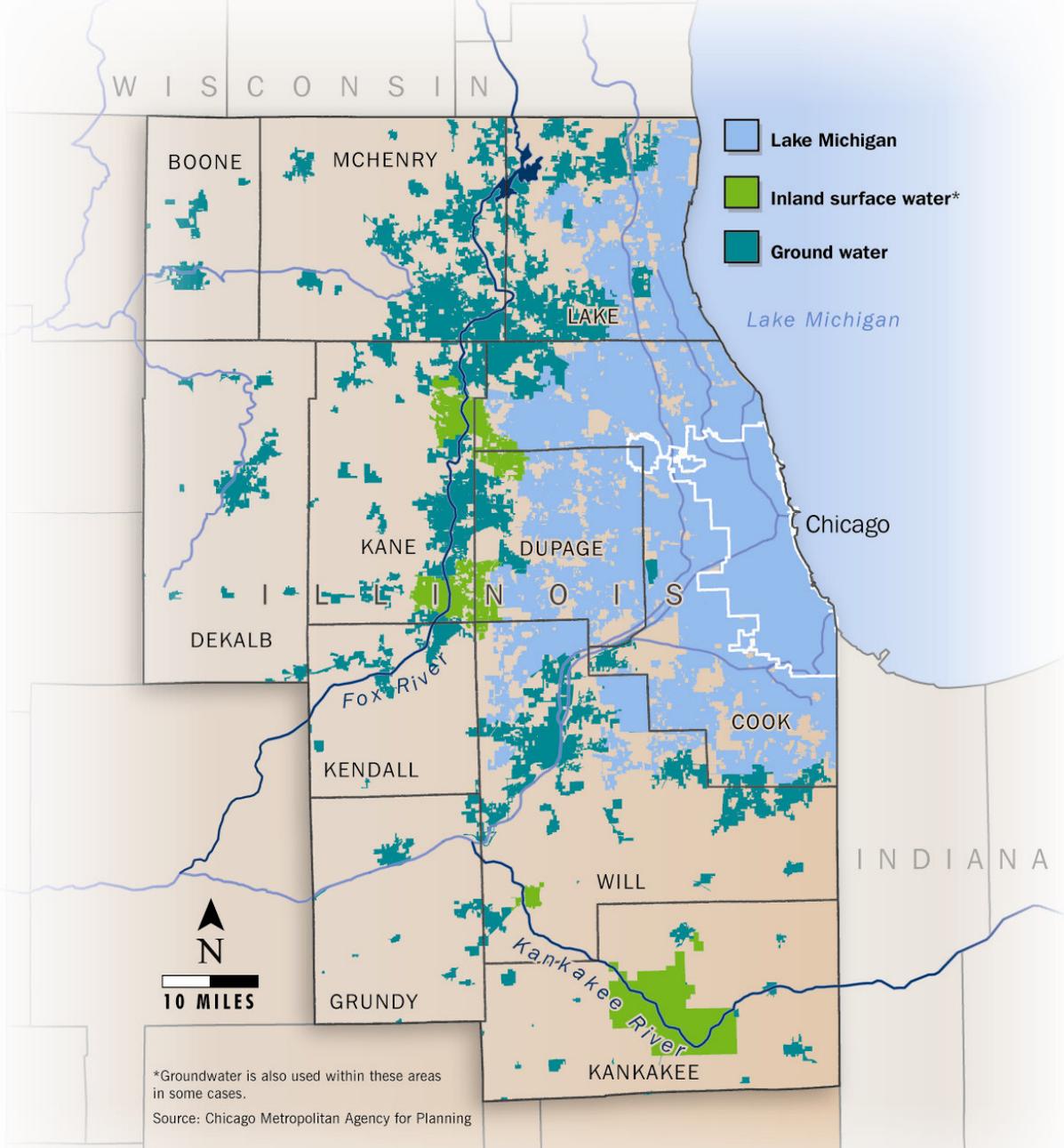
Sources of Drinking Water for Northeastern Illinois

11-county region population, 2000



Source: TBD

Water Sources for Public Supply in Northeastern Illinois



CMAP Scope-of-Work

- 1. Foster the creation of a Regional Water Supply Planning Group (RWSPG) and facilitate/support their work*
- 2. Develop Water Demand Forecasts to 2050*
- 3. Working with the RWSPG, evaluate management options and select for implementation.*
- 4. Outreach and education*



RWSPG

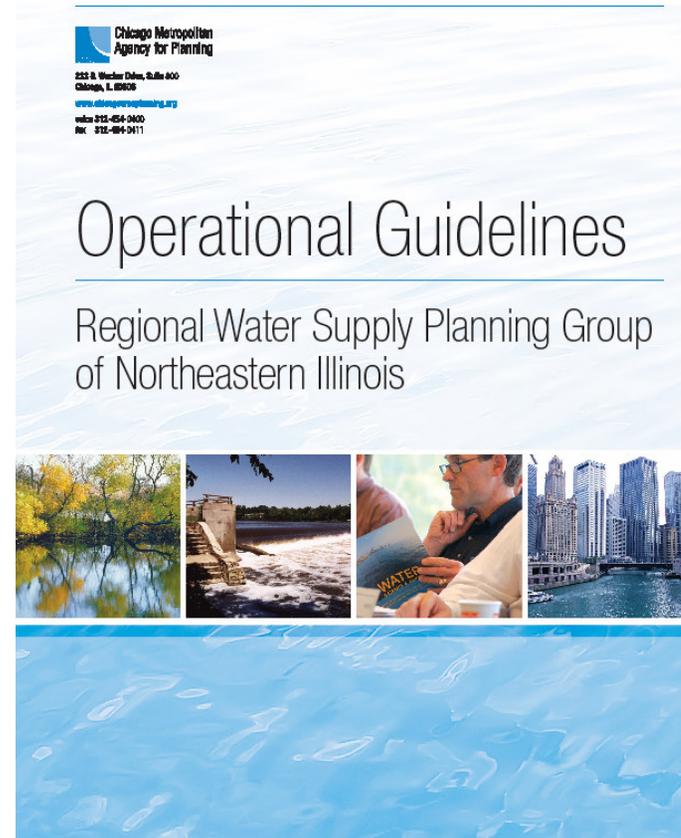
- * county government (11)
- * municipalities / municipal water suppliers (10)
- * academia and public interest in regional planning (2)
- * agriculture (2)
- * business, industry, and power (2)
- * conservation and natural resource management (2)
- * environmental advocacy (2)
- * real estate and development (2)
- * wastewater treatment / nonmunicipal water suppliers (2)





www.cmap.illinois.gov/watersupply/default.aspx

- * Mission Statement
- * Interim Goals
- * Draft Planning Principles
- * Water Resources 101



Estimates of Future Water Use

- Average-daily demand for water withdrawals
- Peak-day demand withdrawals for public supply sys
- Peak-seasonal demand: June – August
- Average-day consumptive use by sector



Factors Affecting Future Water Demands in the 11-County Area of NE Illinois

Total Population
Redistribution of Population Growth
Mix of Commercial / Industrial Activity
Electricity Demand
Power Generation
Water Conservation
Future Water Prices
Median Household Income
Weather: Temperature and Precipitation

Factors Affecting Future Water Demands in the 11-County Area of NE Illinois

Total Population

Redistribution of Population Growth

Mix of Commercial / Industrial Activity

Electricity Demand

Power Generation

Water Conservation

Future Water Prices

Median Household Income

Weather: Temperature / Precipitation

Preliminary Demand Results

Public Supply Water Demand Scenarios (2005-2050):
total use (MGD) will increase 14 – 52%

however,

per capita use will vary:

- **16.3% for LRI**
- **6.7% for CT**
- 11.2% for MRI**



Next Meeting

February 26, 2008

**Water Demand Forecast Scenarios
&
Water-use Conservation Measures**

CMAP

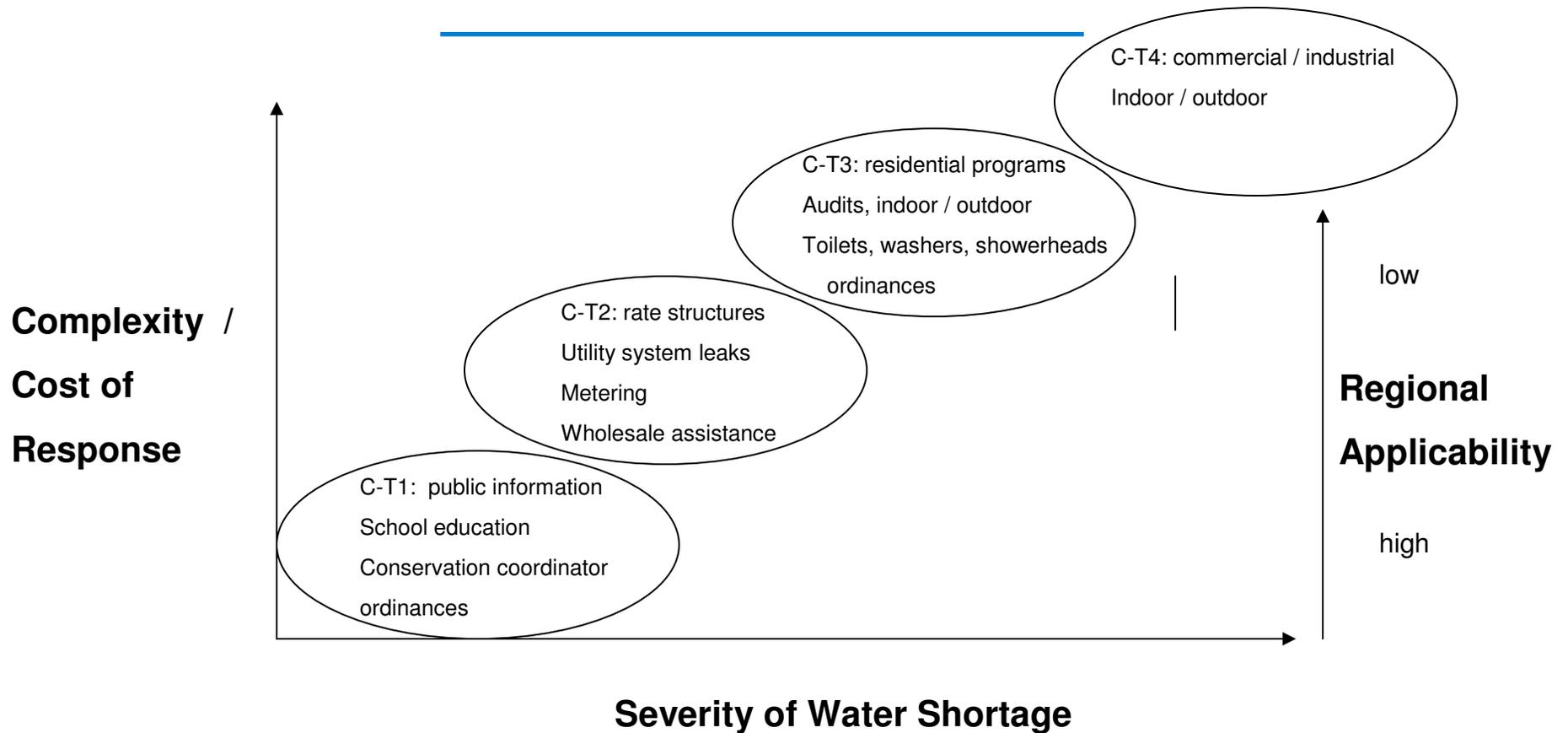
233 South Wacker Drive, Suite 800 (Sears Tower)

9:30 – 1:00 p.m.

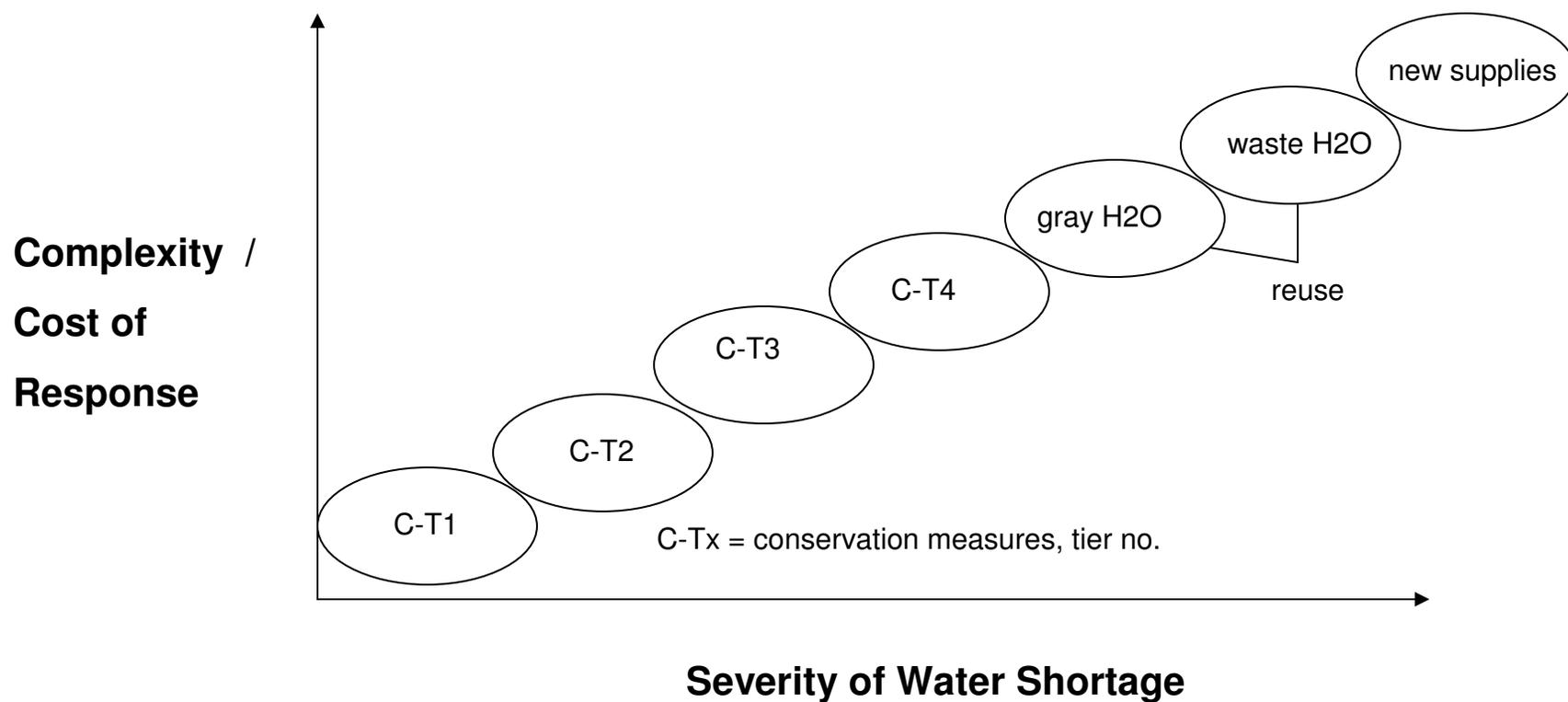


Chicago Metropolitan
Agency for Planning

Demand Management: Conservation



Managing Supply to Meet Water Demand



Regional Heterogeneity

- Urban Areas
- Older Suburban (1945-1970)
- Mid-age Suburban (1970-1993)
- New Development
- Rural / Agricultural



Benefits from H₂O Use Efficiency

Accrue to:

- Water utilities
- Wastewater utilities
- Environment
- Community

(AWWA, 2006)



Chicago Metropolitan
Agency for Planning

It's all Connected!

Water conservation and efficiency



Greenhouse Gas Emission Reductions



What will it take?

- * Political Leadership
- * Stakeholder Involvement in the Process
- * Policy outlining conservation goals & measures
- * H2O use data, demand forecasting, monitoring
- * Stable funding for conservation
- * Staff and technical expertise
- * Education and outreach

(Keyes, Schmitt, and Hinkle 2004)



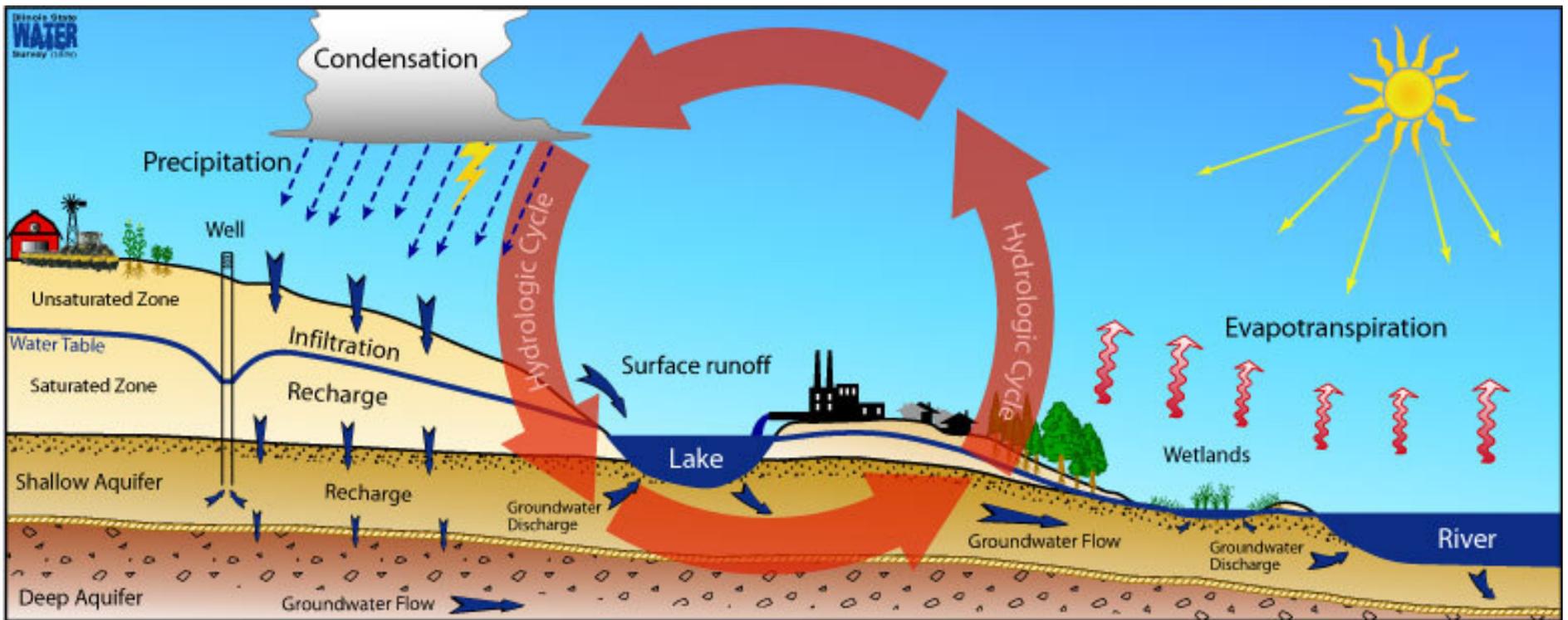
Chicago Metropolitan
Agency for Planning

Summary

- * Building the Regional Foundation
- * Institutional Support for Coordinated Planning:
 - State
 - Region ... CMAP & RWSPG
 - County
 - Municipality
- * Conservation: *Make it an issue and,
Achieve more with less*
- * Individual action



Thank you!



RWSPG Mission Statement

To consider the future water supply needs of northeastern Illinois and develop plans and programs to guide future use that provide adequate and affordable water for all users, including support for economic development, agriculture and the protection of our natural ecosystems.

adopted *April 24, 2007*



Chicago Metropolitan
Agency for Planning